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**Patent and Trademark Office**

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PM31/0811

EXAMINER

LEE, J

ART UNIT

PAPER NUMBER

3625

DATE MAILED: 08/11/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
08/959,931

Applicant(s)  
Treu et al.

Examiner  
Jong-Suk (James) Lee

Group Art Unit  
3625



- ☐ Responsive to communication(s) filed on \_\_\_\_\_
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claim

- ☒ Claim(s) 1-6 is/are pending in the application.
- Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-4 and 6 is/are rejected.
- ☒ Claim(s) 5 is/are objected to.
- ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☒ The drawing(s) filed on Oct 29, 1997 is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☒ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☒ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- ☒ Notice of References Cited, PTO-892
- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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**DETAILED ACTION**

*Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Reference no. 80, closure plate as recited on page 5, line 9. Correction is required

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Reference no.169 in Figs. 8 and 9 and reference no.302 in Fig.11. Correction is required.

*Specification*

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: “an O-ring” as recited in claim 3, line 2 and “a plurality of latching pins” as recited in claim 4, lines 1-2 does not have clear antecedent basis for the terminology in the specification. It is suggested to be --a plurality of latching piston rods-- as described on page 6, line 10 in the specification.

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1 4. The disclosure is objected to because of the following informalities:

2 The content of "Brief Description of the Drawings" on page 4, line 1 in the specification  
3 and the heading for the section of "Description of the Preferred Embodiment(s)" are  
4 omitted. It is suggested that the brief description of each drawings and the heading be  
5 inserted in the specification in order to present the disclosure properly.

6 Refer to followings:

7 The following guidelines illustrate the preferred layout and content for patent applications.  
8 These guidelines are suggested for the applicant's use.

9  
10 **Arrangement of the Specification**

11  
12 The following order or arrangement is preferred in framing the specification and, except  
13 for the title of the invention, each of the lettered items should be preceded by the headings  
14 indicated below.

- 15  
16 (a) Title of the Invention.  
17 (b) Cross-References to Related Applications (if any).  
18 (c) Statement as to rights to inventions made under Federally-sponsored research and  
19 development (if any).  
20 (d) Background of the invention.  
21 1. Field of the Invention.  
22 2. Description of the Related Art including information disclosed under 37  
23 CFR 1.97-1.99.  
24 (e) Summary of the Invention.  
25 (f) Brief Description of the Drawing.  
26 (g) Description of the Preferred Embodiment(s).  
27 (h) Claim(s).  
28 (i) Abstract of the Disclosure.

29 Appropriate correction is required.

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1 5. The disclosure is objected to because of the following informalities:

2 Page 4, line 20: "the skid 80" should be --skid 71--.

3 Page 6, line 2: "the suction port 80" should be --the suction port 88--.

4 Appropriate correction is required.

5  
6 *Claim Objections*

7 6. Claims 1-6 are objected to because of the following informalities:

8 Claims 1-6, line 1 respectively: "pumpskid" is suggested to be --pump skid--.

9 Claim 1, lines 18 and 21 respectively: "the sea" should be --the surrounding sea-- for  
10 clarity.

11 Claim 4, line 7: "retractment" should be --retraction-- in order to have proper noun form.

12 Claim 5, line 5: "the inlet of the outlet" should be --the inlet and the outlet-- in order to  
13 correct typographical error.

14 Claim 6, line 21: "tbe" should be --the-- in order to correct typographical error.

15 Claim 6, line 37: "inlet" should be --the inlet--.

16 Claim 6, line 43: "second valve" should be --the second valve--.

17 Appropriate correction is required.  
18

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*Claim Rejections - 35 USC § 112*

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 4 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 4: The phrase, "each individual to one of the latching pins" in lines 3-4 renders the claim vague because it is not clear as to what each individual is indicating. It is suggested to be --each of the hydraulic actuators to each of the latching pins-- in order to clarify the claim limitation.

Re claim 6: The phrase, "to engage the suction port on the suction port" in lines 16-17 renders the claim confusing because the suction port must be structurally related with other element of the disclosure. It is suggested to be --to engage the suction port on the suction anchor-- in order to be consistent with the claim limitation as set forth in claim 1, lines 8-11. The phrase, "and extending to and from the male connection" in lines 27-28 renders the claim indefinite because it is not clear as to whether the male connection is part of the second portion of the piping means or not. The term, "the male connection" lacks

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clear antecedent basis. Therefore, it is suggested to be --and having the male connector included therein-- as set forth in claim 5, line 7.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Westra et al. in view of Ahlstone.

Westra et al. disclose a suction anchor (1) and method of installing a suction anchor (1) having a pump skid (15, 20) comprising of: a frame (10); a pump (16, 22) mounted on the frame

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1 (10) and having an inlet (A, A') and an outlet (B, B'); a releasable couplings (18, 24) mounted on  
2 the frame and adapted for engagement with a suction port (7, 8) on the suction anchor (1); piping  
3 means (C, C') connected in fluid communication between the inlet (A, A') and the outlet (B, B')  
4 of the pump (16, 22) and the releasable couplings (18, 24) and including a port (7, 8) open to the  
5 surrounding sea; valve means (23) mounted in the piping means (C') for selective actuation to  
6 cause water flow (III) into the pump from the surrounding sea and from the pump (22) through  
7 the releasable couplings (24) into the suction anchor (1), or outwardly from the suction anchor (1)  
8 through the releasable coupling (18) and through the pump (16) and hence into the surrounding  
9 sea; a hydraulic motor (17, 21) mounted on the frame (10) (see Figs. 1-5 and attached figure;  
10 col.2, lines 20-68; col.3, lines 1-65).

11 However Westra et al. fail to disclose or fairly suggest the male connector mounted on the  
12 frame; the latching means for securing the male connector on the pump skid in engagement with  
13 the suction port on the suction anchor, the latching means having a plurality of latching pins and a  
14 plurality of hydraulic actuators; and the O-ring extending the periphery of the male connector.

15 Ahlstone shows a hydraulic connection apparatus for use by an underwater vehicle  
16 comprising of : a suction port/receptacle funnel (30); a male connector (10); latching means (46)  
17 having a plurality of latching pins (50, 52) and a plurality of hydraulic actuators (51, 53) for  
18 selective actuation to extend the latching pins (50) into engagement with the suction port (30) and  
19 extend the latching pins (52) for retraction to disengage the male connector (10) from the suction



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1 port (30); and O-rings (28, 28A) (see Fig. 4; col.6, lines 17-23 and 41-68; col.7, lines 1-5).

2 Therefore, in view of Ahlstone, it would have been obvious to one of the ordinary skill in  
3 the art at the time the invention was made to modify Westra et al.'s releasable couplings by  
4 employing the male connector with O-rings and latching means to the pump skid and the  
5 receptacle portion to the suction anchor as taught by Ahlstone in order to strengthen bonding of  
6 the connection between the pump skid and the suction port and endure high pressurized seawater  
7 flowing in and out through the joint of the connection while in use.

8 With respect to the buoyant material of the male connector body, it is well known  
9 expedient to have a notoriously old and conventional male connector of the pipe made of metal in  
10 order to cooperate the downward movement of the pump skid for approaching and latching to the  
11 suction anchor and to direct the pumped water flow in and out through the connection between  
12 the male connector secured to the pumping means and the receptacles attached to the suction  
13 anchor.

14  
15 *Allowable Subject Matter*

16 11. Claim 5 is objected to as being dependent upon a rejected base claim, but would be  
17 allowable if rewritten in independent form including all of the limitations of the base claim and any  
18 intervening claims.

19 12. Claim 6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112

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1 set forth in this Office action

3 *Conclusion*

4 13. The prior art made of record and not relied upon is considered pertinent to applicant's  
5 disclosure: Snyder, Jr. et al. discloses a tendon foundation guide cone assembly and anode having  
6 a male connector and receptacle; Paulshus et al. shows a packing means for a flexible tension leg  
7 member in a tension leg platform; Shatto'541 discloses a well head apparatus comprising of  
8 suction device; Shatto'415 discloses a well head apparatus having a removable pump assembly  
9 and suction anchors; Harrington shows a method and apparatus for connecting a tubular element  
10 to an underwater wellhead; Pokladnik shows an apparatus for releasably supporting a guide post  
11 to an underwater well installation; Roche et al. discloses a subsea cable apparatus comprising of  
12 clamp on the riser cable and means for engaging and disengaging the clamp; Hogervost shows a  
13 method and apparatus for securing a tubular element to the bottom of the body of the water  
14 including suction anchor and a jump skid assembly; Haley discloses a mechanism for clamping  
15 plates comprising of hydraulic actuators and latching means; Frigeni shows an immersion  
16 apparatus carrying detachable and self contained prospecting and submarine work units; Westling  
17 shows a method and apparatus for offshore anchoring; Mott et al. discloses a deep water anchor  
18 comprising of a suction fill pipe and quick opening connector; Soviet Union patent (SU 797,955)  
19 shows an anchor mechanism with anchors in block having a hollow body with guide elements

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1 forming a suction cavity with bottom of block; Soviet Union patent (SU 610,714) shows a  
2 hydrostatic ship anchor having a drainage filter covering whole housing section and an ejector  
3 pump.

4  
5 14. Any inquiry concerning this communication or earlier communications from the examiner  
6 should be directed to Jong-Suk (James) Lee whose telephone number is (703) 308-6777. The  
7 examiner can normally be reached between the hours of 7:00AM to 4:30PM Monday thru  
8 Thursday and every other Friday (first Friday of the bi-week). If attempts to reach the examiner  
9 by telephone are unsuccessful, the examiner's supervisor, Tamara Graysay , can be reached on  
10 (703) 308-2144. The fax phone number for this Group is (703) 305-3597.

11  
12 Any inquiry of a general nature or relating to the status of this application or proceeding  
13 should be directed to the Group receptionist whose telephone number is (703) 308-2168.

14  
15 Jong-Suk (James) Lee *JS*

16 July 27, 1998

  
TAMARA L. GRAYSAY  
SUPERVISORY PATENT EXAMINER

17  
18 Attachment: Fig.2 of Westra et al. (US 4,432,671)